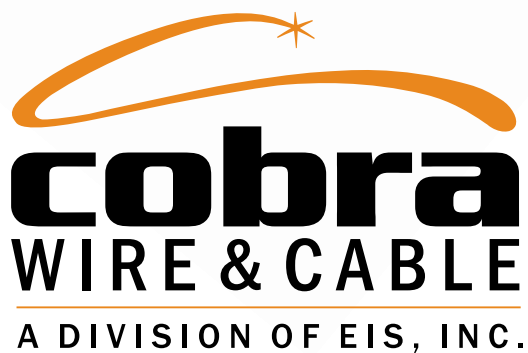




**POWERING YOUR
BUSINESS**

**cobra**
WIRE & CABLE
A DIVISION OF EIS, INC.

www.cobrawire.com

Cobra Wire & Cable, a Division of EIS, Inc., is committed to providing the highest quality products and services to every customer, every time. Our goal is complete and total customer satisfaction before and after the sale.

To satisfy high customer expectations and earn customer confidence, Cobra promises to excel through a program of continuous quality improvement.

Cobra Wire & Cable is committed to keeping our customers informed of the ever changing technologies of tomorrow. Our pledge is to supply the highest quality product at competitive prices, and most importantly, Cobra promises to put our customers' needs first.



Peter Sheehan
President
Cobra Wire & Cable
A Division of EIS, Inc.

ABOUT US

Cobra Wire & Cable was founded in 1988. As a world leader in developing and producing high quality wire and cable meeting virtually every electrical application, Cobra continues to provide the industry with advances in technology and a safer, product. Cobra Wire views environmental obligation, not a “feel good” option because With active sales in all of the industrial has a network of representatives and warehouses to make doing business easy wire and cable inventories, Cobra also carries a full line of lugs, reducers, tubing, ladder rack, and other cable related items.

**POWERING
YOUR
BUSINESS**

more environmentally friendly stewardship as a mandatory future generations depend on it! continents in the world, Cobra strategically located offices and and efficient. In addition to its

Cobra's seasoned wire and cable specialists have decades of experience in this industry. They know wire and cable. This team of experts is uniquely committed to putting the customers' needs first and providing solid solutions to industry challenges.

Eastern Region
(Headquarters)
2930 Turnpike Drive
P.O. Box 790
Hatboro, PA 19040
p 215.674.8773
f 215.674.9530

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p 469.467.0480
f 469.467.0482

Western Region
1041 Andover Park E.
Tukwila, WA 98188
p 253.867.5140
f 253.867.5144

Cobra Wire knows the importance of personalized service. Working with the same sales team for years, Cobra's family of customers appreciates the experience and knowledge only a skilled, highly motivated group can provide. Our Quality Program, which outlines Cobra's pledge to continuous improvement and excellence, has been validated by our most demanding customers.

Historically Cobra is synonymous with trust, experience, knowledge and world class customer service! **COBRA KNOWS WIRE & CABLE!**





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★ A HUGE VARIETY OF WIRES & CABLES AVAILABLE IN STOCK & READY TO SHIP

Cobra supplies the Telecom, DC Power, Battery, UPS, & Marine industries.



TELECOM & DC POWER

Cobra Wire is a leading supplier of the telecom and data center industries. We provide mission critical power connections with the highest level of reliability for mobile & stationary data centers, UPS units, central office power and alternative energy build outs. Cobra produces and stocks space saving, FLEXIBLE DC Power Cable & various Telecom Power Cables, including Cop-Flex 2000[®] and TelcoFlex[®] KS24194[®] L3 and L4. We stock at several strategically located warehouses throughout the country so we can ship it when you need it. **Need Power? Think Cobra!**



TelcoFlex[®] is a registered trademark of Southwire.
KS24194[®] is a registered trademark of Lineage Power Corporation.

COP-FLEX 2000® CLASS I

NON-CLOTH: LIST II ZERO-HALOGEN

DESCRIPTION

This single conductor 600/1000 Volts RHH/RHW/LS non-halogenated cable with stranded tinned copper has an extruded insulation consisting of a crosslinked polyolefin compound. It is intended for use in telephone central office systems and other general wiring applications. Also ideal for people-intensive or critical equipment areas where low smoke, halogen free insulation systems are highly desirable. May be installed in conduit, duct, raceways, aerial, or direct burial.

STRANDING

Annealed Class I tinned copper strand

STANDARD

RHH/RHW per UL44. ASTM B-33 (Tinned Conductors) ASTM B-172 (Rope Lay stranded conductors). Telcordia (Bellcore) GR-347-CORE. UL 1685 LS (Limited Smoke). Rating per FT-4/IEEE 1202. CSA FT-1 per C22.2 No. 210.2. Oil resistant II per UL-44. Sunlight resistant for CT use 1/0 and larger. Rated 105°C AWM per UL subject 758 (style 3578/3237).

INSULATION

Crosslinked polyolefin base compound optimized for superior electrical properties. Specifically formulated to provide rugged, self-lubricating outer covering delivering superior performance, with the additional benefits of low-smoke and halogen-free materials.

VOLTAGE

600/1000 Volts

TEMPERATURE

Rated 90°C dry, 75°C wet

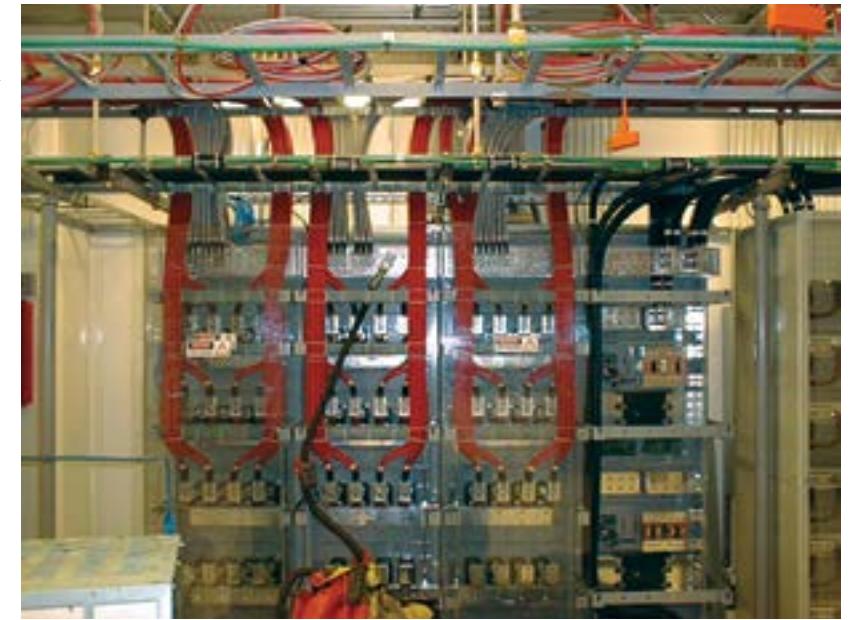


COBRA WIRE & CABLE LSZH COP-FLEX 2000® I NON HAL AWG SIZE (UL) E NUMBER RHH OR RHW- ST1 FT4 600V OR AWM 3578 OR 3237 1000V LL NUMBER CSA AWM IB 105°C FT4 600V RoHS (SIZES OVER 1/0 INCLUDE "FOR CT USE")



NEED LUGS?

Cop-flex 2000® Class I installed in a Telecom Central Office.



Cobra Part Number	Size	*Stranding Tinned Copper Class I	Insulation Thickness	Nominal OD	Ampacity		Cable Weight
	AWG				In	A*	
CPI014T	14	41 x 30^	0.045	0.171	25	35	25
CPI012T	12	65 x 30^	0.045	0.190	30	40	34
CPI010T	10	105 x 30^	0.045	0.215	40	55	49
CPI08T	8	41 x 24	0.060	0.276	55	80	79
CPI06T	6	65 x 24	0.060	0.329	75	105	117
CPI04T	4	105 x 24	0.060	0.389	95	140	175
CPI02T	2	168 x 24	0.060	0.452	130	190	253
CPI10T	1/0	266 x 24	0.080	0.578	170	260	423
CPI20T	2/0	342 x 24	0.080	0.628	195	300	538
CPI40T	4/0	532 x 24	0.080	0.743	260	405	790
CPI350T	350 MCM	888 x 24	0.095	0.946	350	570	1302
CPI500T	500 MCM	1221 x 24	0.095	1.091	430	700	1831
CPI750T	750 MCM	1850 x 24	0.110	1.329	535	885	2752

Ampacities are based on the following:

*Condition A- Ampacities of not more than three 90°C rated single insulated conductors, rated 0 through 2000 volts, in raceway in free air, based on ambient air temperature of 30°C (86°F). Per Nec Table 310-16.

*Condition B- Ampacities of single 90°C rated insulated conductor, rated 0 through 2000 volts, in free air, based on ambient air temperature of 30°C (86°F). Per Nec Table 310-17.

Stranding:

There are multiple strand counts that can be used to meet applicable standards. Depending on strand availability and lead time strand counts may vary slightly

^Class K stranding

COP-FLEX 2000® CLASS B

NON-CLOTH: LIST 1 ZERO-HALOGEN

Available by special order

DESCRIPTION

This single conductor 600/1000 Volts RHH/RHW/LS non-halogenated cable with stranded bare copper has an extruded insulation consisting of a crosslinked polyolefin compound. It is available in various colors and intended for use in telephone central office systems and other general wiring applications. Also ideal for people-intensive and critical equipment areas where low smoke, halogen free insulation systems are highly desirable. May be installed in conduit, duct, raceways, aerial, or direct burial.

STRANDING

Annealed Class B bare copper strand

STANDARD

RHH/RHW per UL44. ASTM B-33 ASTM B-172. Telcordia (Bellcore) GR-347-CORE. UL 1685 LS (Limited Smoke). Rating per FT-4/IEEE 1202. CSA FT-1 per C22.2 No. 210.2. Oil resistant II per UL-44. Sunlight resistant for CT use 1/0 and larger. Rated 105°C AWM per UL subject 758 (Style 3578/3237)

INSULATION

Crosslinked polyolefin base compound optimized for superior electrical properties. Specifically formulated to provide a rugged, self-lubricating outer covering delivering superior performance, with the additional benefits of low-smoke and halogen-free materials.

VOLTAGE

600/1000 Volts

TEMPERATURE

Rated 90°C dry, 75°C wet



NEED LUGS?

Cobra Part Number	Size	Stranding Bare Copper Class B	Insulation Thickness	Nominal OD	Ampacity		Cable Weight
	AWG				In	A*	
CPB06B	6	7 x 14	0.060	0.300	75	105	116
CPB04B	4	7 x 12	0.060	0.350	95	140	171
CPB02B	2	7 x 10	0.060	0.400	130	190	256
CPB10B	1/0	19 x 14	0.080	0.520	170	260	410
CPB20B	2/0	19 x 12	0.080	0.570	195	300	505
CPB40B	4/0	19 x 10	0.080	0.670	260	405	767
CPB350B	350 MCM	37 x 12	0.095	0.850	350	570	1243
CPB500B	500 MCM	37 x 10	0.095	0.980	430	700	1735
CPB750B	750 MCM	61 x 10	0.110	1.190	535	885	2583

Ampacities are based on the following:

*Condition A- Ampacities of not more than three 90°C rated single insulated conductors, rated 0 through 2000 volts, in raceway in free air, based on ambient air temperature of 30°C (86°F). Per Nec Table 310-16.

*Condition B- Ampacities of single 90°C rated insulated conductor, rated 0 through 2000 volts, in free air, based on ambient air temperature of 30°C (86°F). Per Nec Table 310-17.

Stranding:

There are multiple strand counts that can be used to meet applicable standards. Depending on strand availability and lead time strand counts may vary slightly

^Class K stranding

Why Low-Smoke, Zero-Halogen?

Zero-Halogen cables are perfect for use in situations where performance, reliability, and safety are of the highest importance. Plus, they also offer the added benefit of being more environmentally friendly than their halogenated counterparts.

Non-halogenated cables produce drastically lower levels of carbon monoxide and less smoke overall. Sometimes, carbon monoxide output can be as much as 360% lower!

In today's world, your company's environmental impact is a pressing issue. Environmental stewardship is no longer a feel good option, but a mandatory obligation. Cobra's zero-halogen products are helping us all reach that goal.



COBRA WIRE & CABLE LSZH COP-FLEX 2000®
 B NON HAL AWG SIZE (UL) E NUMBER RHH OR
 RHW- ST1 FT4 600V OR AWM 3578 OR 3237 1000V
 LL NUMBER CSA AWM IB 105°C FT4 600V RoHS

TELCOFLEX®

CLOTH BRAID: KS24194® LIST IV ZERO-HALOGEN

DESCRIPTION

TelcoFlex® IV central office power wire and cable class I flexible strand with braid. The cable has low-smoke, lead-free and silicone-free non-halogenated insulation. UL central office power cable 105°C dry, 60°C wet. UL listed RHH/LS FT4 and VW-1, 90°C dry, 60°C wet. 600 volts. Sizes 1/0 and larger are UL, CT USE rated. CSA AWM I B 105°C, 600 Volts, FT4-ST1.

STRANDING

Class I (modified) bunched (8 and 6 gauge) and rope-bunched (4 gauge and larger) stranded tinned copper conductors to ASTM B-33 and UL requirements. An opaque mylar tape is applied over the conductor to facilitate stripping.

STANDARD

TelcoFlex® IV meets or exceeds the following: UL Listed RHH/LS, FT4-Flame Test, VW-1, ASTM B-33, Physical and Electrical tests in accordance with UL standard 44 requirements, CSA AWM I B 105°C.

INSULATION

Insulation is 90°C rated limited smoke, non-halogen, TelcoHyde™ 5221 conforming to Underwriters' Laboratories standard 44 and Telcordia Specification GR-347-CORE, also UL and CSA 105°C AWM rated. The insulation has a limiting oxygen index of 35%.

VOLTAGE

600 Volts

TEMPERATURE

90°C dry, 60°C wet RHH
105°C dry, 60°C wet AWM



TelcoFlex® and TelcoHyde™ are registered trademarks of Southwire. KS24194® is a registered trademark of Lineage Power Corporation.



NEED TELECOM ACCESSORIES?



The electrical wire mill industry began in 1877, when Thomas Doolittle of Connecticut developed hard-drawn copper wire strong enough to be strung overhead.



▲ Cloth cable installed in a Central Office.

Cobra Part Number	Size	Stranding Tinned Copper Class I	Insulation Thickness Mils	Nominal OD In	MAX. D.C RES. @ 20°C OHMS/MFT	Cable Weight Lbs/MFT
	AWG					
MCKI08	8	41 x 24	0.060	0.330	0.679	86
MCKI06	6	65 x 24	0.060	0.365	0.436	120
MCKI04	4	105 x 24	0.060	0.435	0.274	193
MCKI02	2	168 x 24	0.060	0.480	0.172	284
MCKI10	1/0	266 x 24	0.080	0.615	0.109	479
MCKI20	2/0	342 x 24	0.080	0.675	0.087	593
MCKI40	4/0	532 x 24	0.080	0.800	0.055	882
MCKI350	350 MCM	888 x 24	0.095	1.015	0.033	1373
MCKI500	500 MCM	1221 x 24	0.095	1.145	0.023	1906
MCKI750	750 MCM	1850 x 24	0.110	1.380	0.016	2792



TELCOFLEX® IV KS24194® L4 NON HAL SIZE AWG
600V RHH ST1 FT4 (UL) OR AWM 3578 60°C WET VW-1
E NUMBER CSA NUMBER AWM IB 105°C 600V FT4
YEAR (SIZES OVER 1/0 INCLUDE "FOR CT USE")

TELCOFLEX®

CLOTH BRAID: KS24194® LIST III ZERO-HALOGEN

DESCRIPTION

TelcoFlex® III central office power wire and cable class B strand with braid. The cable has low-smoke, lead-free and silicone-free non-halogenated insulation. UL central office power cable 105°C dry, 60°C wet. UL listed RHH/LS FT4 and VW-1, 90°C dry, 60°C wet, 600 volts. Sizes 1/0 and larger are UL, CT USE rate. CSA AWM I B 105°C, 600 Volts, FT4-ST1.

STRANDING

TelcoFlex® III cable is single conductor with a class B stranded tinned copper conforming to ASTM B-33 and Underwriters' Laboratories requirements. An opaque mylar tape shall be applied over the conductor to facilitate stripping.

STANDARD

TelcoFlex® III meets or exceeds the following: UL Listed RHH/LS, FT-4 Flame Test, VW-1, ASTM B-33, Physical and Electrical

tests in accordance with UL standard 44 requirements, CSA AWM I B 105°C.

INSULATION

90°C rated low smoke, non-halogen, TelcoHyde™ 5221 conforming to Underwriters' Laboratories standard 44 and Telcordia Specification GR-347-Core, also UL and CSA 105°C AWM rated. The insulation has a limiting oxygen index of 35%.

VOLTAGE

600 Volts

TEMPERATURE

90°C dry, 60°C wet RHH
105°C dry, 60°C wet AWM



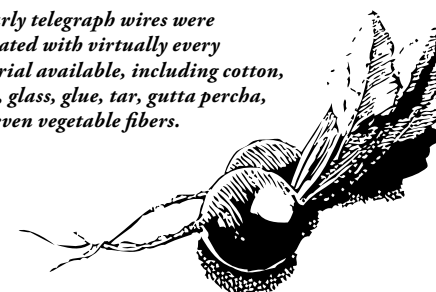
TelcoFlex® and TelcoHyde™ are registered trademarks of Southwire. KS24194® is a registered trademark of Lineage Power Corporation.



TELCOFLEX® III KS24194® L3 NON HAL SIZE AWG
600V RHH ST1 FT4 (UL) OR AWM 3578 60°C WET VW-1
E NUMBER CSA NUMBER CSA AWM IB 105°C 600V FT4
YEAR (SIZES OVER 1/0 INCLUDE "FOR CT USE")

Cobra Part Number	Size	Stranding Tinned Copper Class B	Insulation Thickness	Nominal OD	MAX. D.C RES. @ 20°C	Cable Weight
	AWG		Mils			
MCKB014	14	7 x 22	0.045	0.200	2.730	31
MCKB012	12	7 x 20	0.045	0.220	1.720	41
MCKB010	10	7 x 18	0.045	0.250	1.080	59
MCKB08	8	7 x 16	0.060	0.320	0.678	92
MCKB06	6	7 x 14	0.060	0.355	0.427	130
MCKB04	4	7 x 12	0.060	0.400	0.269	190
MCKB02	2	7 x 10	0.060	0.460	0.169	282
MCKB10	1/0	19 x 14	0.080	0.585	0.106	443
MCKB20	2/0	19 x 12	0.080	0.630	0.084	538
MCKB40	4/0	19 x 10	0.080	0.735	0.052	812
MCKB350	350 MCM	37 x 12	0.095	0.915	0.032	1313
MCKB500	500 MCM	37 x 10	0.095	1.045	0.022	1822
MCKB750	750 MCM	61 x 10	0.110	1.260	0.0148	2692

Early telegraph wires were insulated with virtually every material available, including cotton, pitch, glass, glue, tar, gutta percha, and even vegetable fibers.



NEED TUBING?

X-FLEX Hi-VOLT™ 7500 VOLTS



Cobra Wire & Cable AWG Size E
Number AWM 3499 150°C 7500 V EP
RoHS Compliant Made in USA

CONDUCTORS:

8 AWG - 4/0 AWG Stranded
Tinned Copper per ASTM B-33

STRANDING

Tinned Copper Stranding

STANDARD

UL Standard 758 - Style 3499

INSULATION

POE Color-Coded Ethylene
Propylene Diene Monomer (EPDM)

VOLTAGE

7500 Volts

TEMPERATURE

150°C (min temp -40°C)

STANDARD COLORS

Black

OPTIONS

Additional colors and stripes available
as well as other copper constructions.
Minimums may apply.

Cobra Part Number	Size	Stranding	Min Insulation Thickness	Nominal OD	UL Style
	AWG		In	In	
MX87500V-07	8	7 x 12/27 TC LHL	0.112	0.431	AWM 3499
MX67500V-07	6	7 x 12/25 TC LHL	0.112	0.473	AWM 3499
MX47500V-07	4	7 x 19/25 TC LHL	0.112	0.526	AWM 3499
MX27500V-07	2	7 x 95/30 TC Unilay	0.112	0.560	AWM 3499
MX1/07500V-07	1/0	7 x 37/24 TC Unilay	0.112	0.684	AWM 3499
MX2/07500V-07	2/0	7 x 37/23 TC Unilay	0.112	0.735	AWM 3499
MX3/07500V-07	3/0	19 x 88/30 TC Unilay	0.112	0.740	AWM 3499
MX4/07500V-07	4/0	7 x 37/21 TC Unilay	0.112	0.854	AWM 3499



X-FLEX®

POWER SUPPLY SYSTEMS CABLE

DESCRIPTION

This product is designed to meet or exceed test requirements called for by Underwriters Laboratories and the National Electric Code. It is recommended for use in accordance with UL and CSA for internal wiring of uninterruptible power supply equipment, UL Standard 1778. Cobra's X-FLEX® is also suitable for use in transformers, switchboard panels, controls, electronic circuits and meters. It can be used as battery cable, battery charger cable, motor lead, and power hookup cable. Approved for both the internal and external wiring of appliances.

STRANDING

Class K 30 gauge bare copper. (Also available in tinned copper)

STANDARD

NEC Types: MTW & THW, UL AWM Styles: 1232-1283-1284-1337-1338-1339-10070-10269, BC-5W2 on 6 AWG to 4/0 AWG, TEW A/B FT-1 on 6 AWG to 4/0 AWG, AWM A/B FT-1 on 250 MCM to 750 MCM

INSULATION

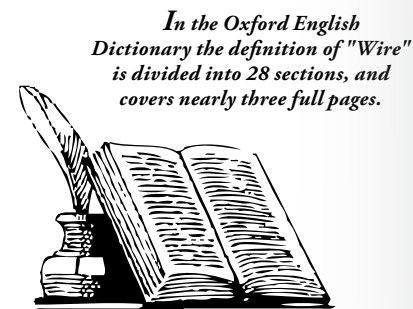
This product offers a unique flame retardant polyvinyl chloride compound (VW-1), and is moisture, abrasion, acid, diesel fuel and oil resistant.

VOLTAGE

600/1000 Volts

TEMPERATURE

105°C Dry, 75°C Wet



COBRA WIRE & CABLE X-FLEX® E NUMBER (UL) BC5W2 OR MTW OR THW OR AWM 1232/1284/1338/10070 600V OR 10269 1000V VW-1 SR AWM SIZE LL NUMBER CSA TEW 105°C 600V OR AWM 1 A/B 105°C 600V O FT1 RoHS COMPLIANT MADE IN USA (FOR SIZES 1/0 AND LARGER ADD "FOR CT USE")

Cobra Part Number	Size	Stranding *	Insulation Thickness	Nominal OD	UL Style	Amps	Cable Weight
	AWG		Mils	In	***	**	Lbs/MFT
A2006B	6	266 x 30	0.060	0.342	1232-1283-10269	118	136
A2004B	4	420 x 30	0.060	0.386	1232-1283-10269	157	189
A2002B	2	665 x 30	0.060	0.446	1232-1283-10269	213	292
A2001B	1	836 x 30	0.080	0.520	1232-1284-10269	246	350
A2110B	1/0	1064 x 30	0.080	0.575	1232-1284-10269	291	450
A2120B	2/0	1330 x 30	0.080	0.610	1232-1284-10269	336	550
A2130B	3/0	1672 x 30	0.080	0.685	1232-1284-10269	392	672
A2140B	4/0	2109 x 30	0.080	0.745	1232-1284-10269	454	820
AT250MB	250 MCM	2527 x 30	0.100	0.835	1284-1339-10269	510	962
A1350MB	350 MCM	3458 x 30	0.100	0.965	1284-1339-10269	638	1280
A1530MB	500 MCM	5054 x 30	0.100	1.130	1284-1339-10269	784	1868
A1750MB	750 MCM	7448 x 30	0.115	1.380	1284-10269	951	2719

*Extra flexible conductor with soft drawn bare copper to ASTM Specifications B172. Also available in tinned copper.

**The 105°C cable ampacities are adapted from ICEA P-54-440/NEMA WC51-86(R1991). The ampacities are provided for informational purposes only. Acceptance of these values by any governing authority is the responsibility of the end user. Ampacities are based on a single conductor, in free air, at 30°C ambient air temperature.

***6 thru 2 AWG also UL1337, 1 AWG thru 4/0 AWG also UL 1338.

***6 thru 4/0 AWG also UL 10070.

1/0 thru 750MCM "CT" approved
1/0 thru 500MCM Bare Copper only FT4 rated



Cobra offers flexible power cable for easier Data Center installs



X-FLEX 150®

POWER SUPPLY SYSTEMS CABLE

DESCRIPTION

This product has a maximum rating of 150°C, 1000 Volts. It is both UL and CSA approved with tin coated copper conductor. It is suitable for both the internal and external wiring of appliances, transformers, switchboards, generators and any other application where a flexible, high temperature VW-1 rating is required. This cable has a VW-1 flame test rating on sizes 6 gauge through 4/0. It is an excellent replacement for the expensive silicone insulated cable or the stiff SIS cable that is hard to work with.

STRANDING

Flexibly stranded tinned copper conductor

STANDARD

3340/3374/3614

INSULATION

Cobra's X-Flex 150® cable is insulated with a thermoset EPDM insulation that has excellent abrasion resistance, strippability, flexibility and dielectric strength. It is also RoHS compliant.

VOLTAGE

600/1000 Volts

TEMPERATURE

150°C



▶ *For continuous running motors a high temperature cable is required to withstand heat buildup.*



NEED LUGS?



▲ *For long lasting performance in transformers and substations you need power cable with a high temperature rating and greater flexibility*

Cobra Part Number	Size	Stranding	Insulation Thickness	Nominal OD	UL Style	Amps	Cable Weight
	AWG						
MX20101KV	20	10 x 30	0.045	0.129	3340-3374-3614	22	10
MX181161KV	18	16 x 30	0.045	0.140	3340-3374-3614	28	13
MX16261KV	16	26 x 30	0.045	0.150	3340-3374-3614	36	17
MX14411KV	14	41 x 30	0.045	0.170	3340-3374-3614	46	23
MX12651KV	12	65 x 30	0.045	0.191	3340-3374-3614	60	33
MX101051KV	10	105 x 30	0.045	0.220	3340-3374-3614	80	54
MX81331KV	8	133 x 29	0.060	0.290	3340-3374-3614	106	90
MX61331KV	6	133 x 27	0.060	0.340	3340-3374-3614	155	130
MX41331KV	4	133 x 25	0.060	0.396	3340-3374-3614	190	190
MX31331KV	3	133 x 24	0.060	0.430	3340-3374-3614	214	235
MX21331KV	2	133 x 23	0.060	0.461	3340-3374-3614	255	280
MX12591KV	1	259 x 25	0.080	0.547	3340-3374-3614	293	345
MX1001KV	1/0	1064 x 30	0.080	0.596	3340-3374-3614	339	425
MX2001KV	2/0	1330 x 30	0.080	0.645	3340-3374-3614	390	520
MX3001KV	3/0	1653 x 30	0.080	0.694	3340-3374-3614	451	635
MX4001KV	4/0	2107 x 30	0.080	0.766	3340-3374-3614	529	790

*At 40°C for a single conductor in free air per NEC, Table 310-19, 1999



COBRA WIRE & CABLE X-FLEX 150® AWG SIZE RU AWM 3340 OR 3374 OR 3614 125°C (FLEX) / 150°DEG (NO FLEX) 600/1000V EP E NUMBER CSA NUMBER OR CL1503 OR AWM I A/B 125°C 600V FT2 MADE IN USA RoHS COMPLIANT (FOR SIZES 1/0 AND LARGER ADD "FOR CT USE")

DIESEL LOCOMOTIVE CABLE (DLO)

DESCRIPTION

Cobra DLO is used in a variety of applications by several industries. The extra flexible tinned copper conductor has a suitable separator on sizes 4 AWG and larger. Insulated and jacketed with a crosslinked EPR thermosetting insulation and jacket, Cobra DLO meets the requirements of ICEA S-68-516 providing toughness along with greater flexibility. This cable passes the MSHA Flame Test with a continuous rating of 90°C. Cable complies with UL Standards 44 & 1581.

STRANDING

Flexibly stranded tin coated copper conductor, B-172, ASTM B-33

STANDARD

RHH/RHW-2 600 Volts and 2000 Volts, RW-90 CSA, 1KV, DLO 2KV.

INSULATION

Ethylene-propylene rubber (EPR) type EP, UL, CSA, ICEA, AAR RP-588, 90°C

VOLTAGE

600/2000 Volts

TEMPERATURE

90°C



Large-scale mining of copper had its origins in the late 1800s, primarily in the American West. Small mines existed around the country, but were primarily located in the Upper Peninsula of Michigan and Arizona.



Cobra Part Number	Size	Stranded TC Cond.	Max. OD In	Amps *	Nominal (In)		Cable Weight Lbs/MFT
	AWG				Insulation	Jacket	
MM0082	8	37 x 24	0.333	83	0.060	0.030	75
MM0062	6	61 x 24	0.403	109	0.060	0.030	125
MM0042	4	105 x 24	0.461	145	0.060	0.030	200
MM0022	2	147 x 24	0.510	192	0.060	0.030	265
MM00312	1	224 x 24	0.650	223	0.080	0.045	415
MM102DL	1/0	273 x 24	0.700	258	0.080	0.045	490
MM202DL	2/0	323 x 24	0.740	298	0.080	0.045	560
MM302DL	3/0	456 x 24	0.815	345	0.080	0.045	755
MM402DL	4/0	551 x 24	0.870	400	0.080	0.045	895
MM2622	262	646 x 24	0.990	458	0.095	0.065	1085
MM3132	313	777 x 24	1.055	512	0.095	0.065	1255
MM3732	373	925 x 24	1.125	574	0.095	0.065	1485
MM4442	444	1110 x 24	1.205	642	0.095	0.065	1745
MM5352	535	1332 x 24	1.305	723	0.110	0.065	2090
MM6462	646	1591 x 24	1.410	814	0.110	0.065	2470
MM7772	777	1924 x 24	1.500	917	0.110	0.065	2910
MM9292	929	2318 x 24	1.610	1025	0.120	0.065	3417
MM1112	1111	2745 x 24	1.800	1143	0.125	0.095	4150

*Allowable ampacities of single insulated conductors, per NEC table 310-17. Free air measured. Based on continuous duty at 90° conductor temperature.



E NUMBER UL TYPE RHW-2 AWG SIZE 2KV STI FT4
 VW-1 UL TYPE RW90 EP 1000V CSA NUMBER R90 EP
 -40°C FT1 1KV TYPE DLO 2KV 90°C MSHA NUMBER
 (SIZES OVER 1/0 INCLUDE "FOR CT USE")

★ 1/0 AND LARGER CT APPROVED

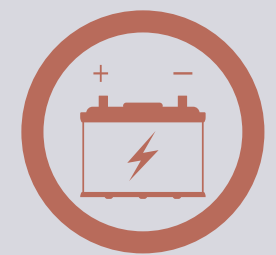


◀ For use in transit car/railroad wiring and electrical/diesel locomotives.



Cobra Wire offers a Battery Systems Cable for use in areas such as Uninterruptible Power Supplies, Battery Chargers, Forklifts and more. Cobra Wire's UL recognized product is RoHS compliant, VW-1 approved & rated at 600 volts and 105°C. We stock in both black and red colors and can cut to the exact length you require. Tell Cobra what you need and we can ship it today!
Need Power? Think Cobra!

BATTERY & UPS *(Uninterruptible Power Supply)*



COBRA WIRE BATTERY SYSTEMS CABLE®

UL 3311 ZERO-HALOGEN

DESCRIPTION

This specification covers the requirements for flexible single conductor motor lead and coil lead wire and meets the requirements of UL subject 758 and CSA C22.2 #210.2. This UL 3311 product is suitable for use as battery cable, welding cable, motor leads, and other DC power applications including the internal wiring of appliances and uninterruptible power supply systems. This cable is acid resistant and certified zero-halogen.

STRANDING

Class K Bare Copper

STANDARD

UL 3311 & 3279

INSULATION

Cobra Battery Systems Cable is insulated with a thermoset EPDM insulation that has excellent abrasion resistance, strippability, flexibility and dielectric strength. It is also RoHS compliant.

VOLTAGE

600 Volts

TEMPERATURE

UL Style 3311 at 90°C
 UL Style 3279 at 105°C
 VW-1



▼ Cobra offers Battery Systems Cable that is used on forklift batteries.

Cobra Part Number	Size	Stranding	Insulation Thickness	Nominal OD	UL Style	CSA	Amps		Cable Weight Lbs/MFT
	AWG		Mils	In			*90°C	**105°C	
C9908B	8	133 x 29	0.060	0.290	3311 & 3279	CL 905	83	92	84
C9906B	6	259 x 30	0.080	0.375	3311 & 3279	CL 905	105	118	136
C9904B	4	420 x 30	0.080	0.430	3311 & 3279	CL 905	140	157	189
C9902B	2	665 x 30	0.080	0.495	3311 & 3279	CL 905	190	213	288
C9901B	1	836 x 30	0.095	0.565	3311 & 3279	CL 905	220	246	348
C9910B	1/0	1064 x 30	0.095	0.615	3311 & 3279	CL 905	260	291	444
C9920B	2/0	1330 x 30	0.095	0.664	3311 & 3279	CL 905	300	336	551
C9930B	3/0	1672 x 30	0.095	0.719	3311 & 3279	CL 905	350	392	663
C9940B	4/0	2109 x 30	0.095	0.785	3311 & 3279	CL 905	405	454	820
C4925B	250 MCM	2451 x 30	0.095	0.806	3311	CL 905	455	510	970

*Allowable Ampacities of Single Insulated Conductors, per NEC table 310-17 Cable manufactured in accordance with Federal EPA Rule, Title 40-part 82, (ODC's)

**The 105°C cable ampacities are adapted from ICEA P-54-440/NEMA WC51-1986(R1991). The ampacities are provided for informational purposes only. Acceptance of these values by any governing authority is the responsibility of the end user. Ampacities are based on a single conductor, in free air, at 30°C ambient air temperature.



COBRA WIRE & CABLE AWG SIZE E NUMBER RU AWM 3311 90°C OR 3279 105°C 600V VW-1 CSA NUMBER CL905 90°C 600V RoHS COMPLIANT



NEED LUGS?



X-FLEX®

POWER SUPPLY SYSTEMS CABLE

DESCRIPTION

This product is designed to meet or exceed test requirements called for by Underwriters Laboratories and the National Electric Code. It is recommended for use in accordance with UL and CSA for internal wiring of uninterruptible power supply equipment, UL Standard 1778. Cobra's X-FLEX® is also suitable for use in transformers, switchboard panels, controls, electronic circuits and meters. It can be used as battery cable, battery charger cable, motor lead, and power hookup cable.

STRANDING

Class K 30 gauge bare copper. (Also available in tinned copper)

STANDARD

NEC Types: MTW & THW, UL AWM Styles: 1232-1283-1284-1337-1338-1339-10070-10269, BC-5W2 on 6 AWG to 4/0 AWG, TEW A/B FT-1 on 6 AWG to 4/0 AWG, AWM A/B FT-1 on 250 MCM to 750 MCM

INSULATION

This product offers a unique flame retardant polyvinyl chloride compound (VW-1), and is moisture, abrasion, acid, diesel fuel and oil resistant.

VOLTAGE

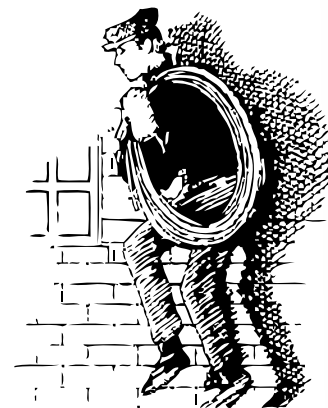
600/1000 Volts

TEMPERATURE

105°C Dry, 75°C Wet



One of the main reasons the first telegraph wires were placed underground in the 1830s was fear of thievery, since the wires were made of copper.



COBRA WIRE & CABLE X-FLEX® E NUMBER (UL) BC5W2 OR MTW OR THW OR AWM 1232/1284/1338/10070 600V OR 10269 1000V VW-1 SR AWG SIZE LL NUMBER CSA TEW 105°C 600V OR AWM I A/B 105°C 600V O FT1 RoHS COMPLIANT MADE IN USA (FOR SIZES 1/0 AND LARGER ADD "FOR CT USE")

Cobra Part Number	Size	Stranding	Insulation Thickness	Nominal OD	UL Style	Amps	Cable Weight
	AWG		Mils	In			
A2006B	6	266 x 30	0.060	0.342	1232-1283-10269	118	136
A2004B	4	420 x 30	0.060	0.386	1232-1283-10269	157	189
A2002B	2	665 x 30	0.060	0.446	1232-1283-10269	213	292
A2001B	1	836 x 30	0.080	0.520	1232-1284-10269	246	350
A2110B	1/0	1064 x 30	0.080	0.575	1232-1284-10269	291	450
A2120B	2/0	1330 x 30	0.080	0.610	1232-1284-10269	336	550
A2130B	3/0	1672 x 30	0.080	0.685	1232-1284-10269	392	672
A2140B	4/0	2109 x 30	0.080	0.745	1232-1284-10269	454	820
AT250MB	250 MCM	2527 x 30	0.100	0.835	1284-1339-10269	510	962
A1350MB	350 MCM	3458 x 30	0.100	0.965	1284-1339-10269	638	1280
A1530MB	500 MCM	5054 x 30	0.100	1.130	1284-1339-10269	784	1868
A1750MB	750 MCM	7448 x 30	0.115	1.380	1284-10269	951	2719

*Extra flexible conductor with soft drawn bare copper to ASTM Specifications B172. Also available in tinned copper.

**The 105°C cable ampacities are adapted from ICEA P-54-440/NEMA WC51-1986(R1991). The ampacities are provided for informational purposes only. Acceptance of these values by any governing authority is the responsibility of the end user. Ampacities are based on a single conductor, in free air, at 30°C ambient air temperature.

***6 thru 2 AWG also UL1337, 1 AWG thru 4/0 also UL 1338.

***6 thru 4/0 AWG also UL 10070.

1/0 thru 750MCM "CT" approved
1/0 thru 500MCM Bare Copper only FT4 rated



Cobra produces a complete line of tinned copper boat cable in both flat and round constructions. Cobra Wire boat cable is available in various jacket colors and inner conductor colors. All material meets or exceeds ABYC, UL, & Coast Guard requirements. All Cobra Wire Marine Boat Cable is RoHS compliant. Cobra Wire also produces a full line of extra flexible tinned copper marine battery cables as well as a complete line of **ABS shipboard cables**. **Need Power? Think Cobra!**

***NOW ABS TYPE APPROVED BOAT CABLES**

MARINE



COBRA WIRE & CABLE BOAT CABLE®

FLAT MULTI CONDUCTOR MARINE CABLE MEETING UL & ABYC STANDARDS

DESCRIPTION

This specification covers the requirements for flexible multi conductor tinned copper, flame retardant boat cable. Cobra boat cable meets or exceeds ABYC, UL, and Coast Guard requirements. Cable is rated at 105°C, 75°C wet (BC-5W2) 600 Volt UL 1426 for AC and DC circuits.

STRANDING

Class K 30 Gauge Tinned Copper

STANDARD

UL 1426
UL Listed BC-5W2



INSULATION

This product offers a unique flame retardant polyvinyl chloride compound (VW-1), and is moisture, abrasion, acid, diesel fuel and oil resistant. It is extremely flexible and easy to work with.

VOLTAGE

600 Volts

TEMPERATURE

105°C dry, 75°C wet



★ VARIOUS JACKETS AND INNER CONDUCTOR COLOR COMBINATIONS AVAILABLE.



COBRA WIRE & CABLE BOAT CABLE®
E NUMBER (UL) AWG SIZE # OF COND
600V 105°C DRY 75°C WET BC5W2
MADE IN USA RoHS COMPLIANT

Cobra Part Number	Size	Conductors	Stranding	Insulation Thickness	Nominal OD	Cable Weight
	AWG				In	
B7W16T-XX	16	2	26 x 30	0.030	0.192 x 0.319	51
B7G16T-XX	16	2	26 x 30	0.030	0.192 x 0.319	51
B7W16T-XX	16	3	26 x 30	0.030	0.187 x 0.433	70
B7G16T-XX	16	3	26 x 30	0.030	0.187 x 0.433	70
B7W14T-XX	14	2	41 x 30	0.030	0.215 x 0.350	65
B7G14T-XX	14	2	41 x 30	0.030	0.215 x 0.350	65
B7W14T-XX	14	3	41 x 30	0.030	0.223 x 0.500	93
B7G14T-XX	14	3	41 x 30	0.030	0.223 x 0.500	93
B7W12T-XX	12	2	65 x 30	0.030	0.230 x 0.381	92
B7G12T-XX	12	2	65 x 30	0.030	0.230 x 0.381	92
B7W12T-XX	12	3	65 x 30	0.030	0.230 x 0.528	128
B7G12T-XX	12	3	65 x 30	0.030	0.230 x 0.528	128
B7W10T-XX	10	2	105 x 30	0.030	0.250 x 0.430	138
B7G10T-XX	10	2	105 x 30	0.030	0.250 x 0.430	138
B7W10T-XX	10	3	105 x 30	0.030	0.270 x 0.620	179
B7G10T-XX	10	3	105 x 30	0.030	0.270 x 0.620	179
B7W82T-XX	8	2	133 x 29	0.045	0.362 x 0.607	230
B7G82T-XX	8	2	133 x 29	0.045	0.362 x 0.607	230
B7W83T-XX	8	3	133 x 29	0.045	0.363 x 0.885	320
B7G83T-XX	8	3	133 x 29	0.045	0.363 x 0.885	320
B7W62T-XX	6	2	133 x 29	0.060	0.436 x 0.772	364
B7G62T-XX	6	2	133 x 29	0.060	0.436 x 0.772	364
B7W63T-XX	6	3	133 x 29	0.060	0.450 x 1.080	523
B7G63T-XX	6	3	133 x 29	0.060	0.450 x 1.080	523

W=White, G=Gray



You can count on the excellence and dependability of these marine cables, meeting both UL & ABYC standards, when manufacturing high quality yachts, sport fishing boats, and pleasure crafts. Available for aftermarket uses as well.

COBRA WIRE & CABLE BOAT CABLE®

ROUND MULTI CONDUCTOR MARINE CABLE MEETING UL & ABYC STANDARDS

DESCRIPTION

This specification covers the requirements for flexible multi conductor tinned copper flame retardant boat cable. Cobra boat cable meets or exceeds ABYC, UL, and Coast Guard requirements. Cable is rated at 105°C, 75°C wet (BC-5W2) 600 Volts UL 1426 for AC & DC circuits.

STRANDING

Class K 30 Gauge Tinned Copper

STANDARD

UL 1426
UL listed

INSULATION

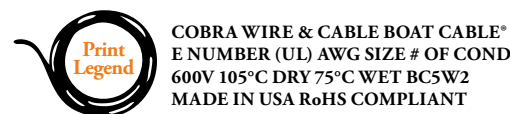
This product offers a unique flame retardant polyvinyl chloride compound (VW-1), and is moisture, abrasion, acid, diesel fuel and oil resistant. It is extremely flexible & easy to work with. Standard colors on overall jacket include gray and white.

VOLTAGE

600 Volts

TEMPERATURE

105°C dry, 75°C wet



Cobra Part Number	Size	Conductors	Stranding	Insulation Thickness	Nominal OD	Cable Weight
	AWG					Lbs/MFT
B6W16T-XX	16	2	26 x 30	0.030	0.313	49
B6G16T-XX	16	2	26 x 30	0.030	0.313	49
B6W16T-XX	16	3	26 x 30	0.030	0.333	64
B6G16T-XX	16	3	26 x 30	0.030	0.333	64
B6W16T-XX	16	4	26 x 30	0.030	0.366	80
B6G16T-XX	16	4	26 x 30	0.030	0.366	80
B6W16T-XX	16	5	26 x 30	0.030	0.399	95
B6G16T-XX	16	5	26 x 30	0.030	0.399	95
B6W16T-XX	16	6	26 x 30	0.030	0.436	111
B6G16T-XX	16	6	26 x 30	0.030	0.436	111
B6W14T-XX	14	2	41 x 30	0.030	0.349	66
B6G14T-XX	14	2	41 x 30	0.030	0.349	66
B6W14T-XX	14	3	41 x 30	0.030	0.393	89
B6G14T-XX	14	3	41 x 30	0.030	0.393	89
B6W14T-XX	14	4	41 x 30	0.030	0.408	109
B6G14T-XX	14	4	41 x 30	0.030	0.408	109
B6W14T-XX	14	5	41 x 30	0.030	0.458	132
B6G14T-XX	14	5	41 x 30	0.030	0.458	132
B6W14T-XX	14	6	41 x 30	0.030	0.488	153
B6G14T-XX	14	6	41 x 30	0.030	0.488	153
B6W12T-XX	12	2	65 x 30	0.030	0.409	98
B6G12T-XX	12	2	65 x 30	0.030	0.409	98
B6W12T-XX	12	3	65 x 30	0.030	0.434	128
B6G12T-XX	12	3	65 x 30	0.030	0.434	128
B6W12T-XX	12	4	65 x 30	0.030	0.476	160
B6G12T-XX	12	4	65 x 30	0.030	0.476	160
B6W12T-XX	12	5	65 x 30	0.030	0.523	191
B6G12T-XX	12	5	65 x 30	0.030	0.523	191
B6W10T-XX	10	2	105 x 30	0.030	0.467	138
B6G10T-XX	10	2	105 x 30	0.030	0.467	138
B6W10T-XX	10	3	105 x 30	0.030	0.497	184
B6G10T-XX	10	3	105 x 30	0.030	0.497	184
B6W10T-XX	10	4	105 x 30	0.030	0.555	232
B6G10T-XX	10	4	105 x 30	0.030	0.555	232
B6W10T-XX	10	5	105 x 30	0.030	0.616	496
B6G10T-XX	10	5	105 x 30	0.030	0.616	496
B6W84T-XX	8	4	133 x 28	0.045	0.768	386
B6G84T-XX	8	4	133 x 28	0.045	0.768	386
B6G64T-XX	6	4	266 x 30	0.060	0.975	700

EXTRA FLEXIBLE MARINE BATTERY CABLE

MARINE CABLE MEETING UL & ABYC STANDARDS

DESCRIPTION

This product was designed to meet or exceed test requirements called for by Underwriters Laboratories and the National Electric Code. It is recommended for use in accordance with UL and CSA for internal wiring. The extra flexible conductors with soft drawn tinned copper meet ASTM Specification B172. It is also suitable for use in transformers, switchboard panels, controls, electronic circuits, and as battery cable, battery charger cable, motor lead, and power hook up cable.

STANDARD

UL 1426
UL Listed BC-5W2

INSULATION

This product offers a unique flame retardant polyvinyl chloride compound (VW-1) and is moisture, abrasion, acid, diesel fuel and oil resistant. It is extremely flexible & easy to work with.

VOLTAGE

600/1000 Volts

TEMPERATURE

105°C dry, 75°C wet

STRANDING

Class K Tinned Copper



COBRA WIRE & CABLE X-FLEX® E NUMBER (UL) BC5W2 OR MTW OR THW OR AWM 1232/1284/1338/10070 600V OR 10269 1000V VW-1 SR AWG SIZE LL NUMBER CSA TEW 105°C 600V OR AWM I A/B 105°C 600V O FT1 RoHS COMPLIANT MADE IN USA (FOR SIZES 1/0 AND LARGER ADD "FOR CT USE")

Cobra Part Number	Size AWG	Stranding *	Insulation Thickness Mils	Nominal OD In	UL Style ***	Amps **	Cable Weight Lbs/MFT
A2006T	6	266 x 30	0.060	0.342	1232-1283-10269	118	136
A2004T	4	420 x 30	0.060	0.386	1232-1283-10269	157	189
A2002T	2	665 x 30	0.060	0.446	1232-1283-10269	213	292
A2001T	1	836 x 30	0.080	0.520	1232-1284-10269	246	351
A2110T	1/0	1064 x 30	0.080	0.575	1232-1284-10269	291	450
A2120T	2/0	1330 x 30	0.080	0.610	1232-1284-10269	336	551
A2130T	3/0	1665 x 30	0.080	0.685	1232-1284-10269	392	672
A2140T	4/0	2109 x 30	0.080	0.745	1232-1284-10269	454	820

Cable manufactured in accordance with the new Federal EPA Rule, Title 40-part 82, (OCD's)

*Extra flexible conductor with soft drawn tinned copper to ASTM Specifications B172.

**The 105°C cable ampacities are adapted from ICEA P-54-440/NEMA WC51-1986(R1991). The ampacities are provided for informational purposes only. Acceptance of these values by any governing authority is the responsibility of the end user. Ampacities are based on a single conductor, in free air, at 30°C ambient air temperature. 90°C ampacities per NEC 310-17.

***6 thru 2 AWG also UL1337, 1 thru 4/0 also UL 1338, 6 thru 4/0 AWG also UL 10070.

1/0 thru 750MCM "CT" approved
1/0 thru 500MCM FT4 rated

★ SEVERAL COLORS AVAILABLE

EXTRA FLEXIBLE MARINE SINGLES

DESCRIPTION

This product was designed to meet the requirements of Underwriters Laboratories. It can be used as internal wiring of electrical and electronic equipment, internal wiring of panels and meters, point to point, etc. Stranding is tin coated copper for corrosion resistance.

STRANDING

Class K Tinned Copper

★ MOST COLORS STOCKED, OTHERS AVAILABLE UPON REQUEST

STANDARD

UL 1015-1230

INSULATION

This product offers a unique flame retardant polyvinyl chloride compound (VW-1), and is moisture, abrasion, acid, diesel fuel and oil resistant. It is extremely flexible and easy to work with.

VOLTAGE

600 Volts

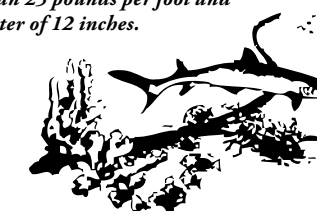
TEMPERATURE

105°C Dry, 75°C Wet



Cobra Part Number	Size AWG	Stranding	Insulation Thickness In	Nominal OD In	UL Style	Cable Weight Lbs/MFT
A2018T	18	16 x 30	0.032	0.111	1015-1230	11
A1016T	16	26 x 30	0.032	0.123	1015-1230	15
A1014T	14	41 x 30	0.032	0.141	1015-1230	22
A1012T	12	65 x 30	0.032	0.156	1015-1230	32
A2010T	10	104 x 30	0.032	0.185	1015-1230	46
A2008T	8	133 x 29	0.048	0.261	1028-1231	79

The largest electrical cable known to have been installed was an 84 conductor submarine communication cable laid on the ocean floor in the early 1950s for anti-submarine warfare use. It weighed more than 25 pounds per foot and had an outside diameter of 12 inches.



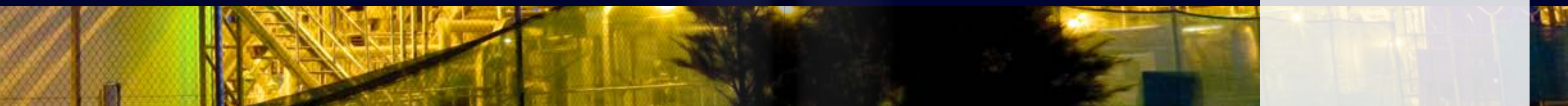
AWG SIZE E NUMBER (UL) MTW OR AWM 1011/1015/1230/1335 600V OR 1032 1000V MOISURE RESISTANT VW-1 ** CSA TEW 105°C 600V FT1 OR AWM I A/B 105°C 600V FT1



Cobra Wire & Cable offers a variety of thermocouple/instrumentation wires and cables, as well as extension wires, armored cables and other temperature measurement products. Our RTD & thermocouple cable has Gamma Stable approvals for the medical industry. **Whatever the application may be for temperature measurement, Think Cobra!**

TEMPERATURE

(Measurement Products)



THERMOCOUPLE



FEATURES:

High Quality - All Cobra temperature measurement products are produced from the highest quality raw materials. These products can be extruded, cabled, and armored under carefully controlled conditions to assure strict conformity with your specifications.

Reduced Noise - Cobra temperature measurement wires are designed to provide a clean signal by twisting the pairs in a tight, staggered lay. After the twisted pairs have been cabled together, external electrostatic noise is further reduced by a total coverage shield and drain wire.

OPTIONS

- Tin, Silver, and Nickel Plated Copper
- Platinum/Rhodium
- 40 AWG to 20 AWG
- 2 to 8 conductors twisted to limit interference

Cobra now offers Gamma Stable Thermocouple/RTD wire.
Cobra is pleased to announce our product has earned Gamma Stable approval after passing stringent testing at the Science and Engineering Gamma Irradiation Test Lab at the Defense Microelectronics Activity Lab. Our wire successfully passed the Mil-STD-883G testing requirements. If you need Gamma Stable Thermocouple/RTD wire, contact Cobra Wire & Cable. Our product is being offered to the industry at very competitive pricing.

RTD CABLE/PT-100



An overall shield will prevent most of the interference from other equipment. For extra protection against outside interference, choose individual and overall shielding.

Shielding helps eliminate electrical noise that will affect measurement. Ask about our aluminum mylar, aluminum Polyimide, tin copper braid, silver copper braid, and nickel plated copper braid shielding. Tinned copper and stainless steel overbraids provide excellent abrasion resistance.

THERMOCOUPLE ASSEMBLIES

- Designed to your specifications
- Built with top quality components
- Calibration available
- Quick turnaround times
- First article samples
- Save assembly time
- Stock programs available



Insulation	Temperature	
PVC	220°F	105°C
FEP	400°F	205°C
PFA	500°F	260°C
Glass Braid	900°F	480°C

Gauge	Stranding
20	7 x 28
22	7 x 30
24	7 x 32
26	7 x 34
28	7 x 36
30	7 x 38
32	7 x 40
34	7 x 42
36	7 x 44
38	7 x 46
40	7 x 48

CONSTRUCTION

CALIBRATIONS

- 1-Type K
- 2-Type J
- 3-Type T
- 4-Type R/S
- 5-Type E
- 6-Type N

GRADES

- Thermocouple • Extension Thermocouple • Premium Extension • Premium
- Tinned Plated Copper • Bare Copper • Positive • Negative
- Silver Plated Copper • Nickel Plated Copper • and more...

GAUGE SIZES

40 AWG to 8 AWG

STRANDING

- Solid
- Stranded

SHIELDING

- Aluminum Mylar • Mylar Wrap • Stainless Steel Braid
- Tinned Copper Braid • Nickel-Chromium Alloy Braid • Individual and Overall Aluminum Mylar • Aluminum Polyimide • and more ...

INSULATION

- Silica Based Insulations • Heavy Duty Rubber • Nylon • PVC • PVC Ripcord
- Ceramic Fiber • Glass Braid • Glass Wrap • High Temperature Glass Braid
- Synthetic Fiber • FEP PTFE • PTFE Tape • PFA PTFE • PVC-Nylon
- Silicone Rubber • TPR- Glass Braid • Polyimide
- Thermoplastic Polyester Elastomer • and more...(see page #43)

PAIR COUNT

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, and more...

FINE WIRE APPLICATIONS:

- Medical Electronics
- Avionics Automotive
- Paper Manufacturing Much more...

INSULATION MATERIALS

Abbr.	Designation	Continuous Temperature	Intermittant Temperature	Abrasion Resistance	Moisture Resistance	Chemical Resistance
PE	Polyethylene (as low as -65°C)	176F (80°C)	176F (80°C)	G	E	E
PU	Polyurethane (as low as -25°C)	176F (80°C)	176F (80°C)	O	P	F
CT	Double Cotton Serve	190F (88°C)	190F (88°C)	G	F	G
CPE	Chlorinated Polyethylene (as low as -55°C)	194F (90°C)	194F (90°C)	O	E	E
RU	Heavy Duty Rubber insulation (can be run over with forklift)	194F (90°C)	194F (90°C)	E	G	G
PVC	Polyvinyl Chloride (as low as -40°C)	220F (105°C)	220F (105°C)	G	E	G
PVC Ripcord	Polyvinyl Chloride bonded singles	220F (105°C)	220F (105°C)	G	E	G
HY	Hytrel™	255F (125°C)	255F (125°C)	E	E	E
XLP	PEX Cross Link Polyethylene	255F(125°C)	255F (125°C)	G	E	E
NY	Nylon (Gamma Stable available)	300F (150°C)	300F (150°C)	E	F	G
ETFE	Ethylene Tetrafluoroethylene	302F (150°C)	392F (200°C)	E	E	E
FEP	Fluorinated Ethylene Propylene	400F (205°C)	500F (260°C)	E	E	E
SR	Silicone Rubber higher temp and flexible (as low as -80°C)	482F (250°C)	482F (250°C)	F	G	G
K	Polimide Tape	500F (315°C)	650F (430°C)	E	E	E
PFA	Perfluorinated-Tetrafluoroethylene	500F (260°C)	600F (315°C)	G	E	E
PTFE	Polytetrafluoroethylene Extrusion	500F (260°C)	600F (315°C)	E	E	E
TFE	Polytetrafluoroethylene Tape	500F (260°C)	600F (315°C)	G	E	E
SF	Heavy Duty Moisture Resistant Yarn	550F (290°C)	650F (340°C)	G	G	G
GB	Braided Glass Yarn	900F (480°C)	1000F (540°C)	F	G	G
GW	Served Glass Wrap	900F (480°C)	1000F (540°C)	F	G	G
HT GB	High Temp Braided Glass Yarn	1200F (650°C)	1450F (790°C)	F	F	G
TS	Tough Saturant Glass Braid for Abrasion Resistance	1200F (650°C)	1450F (790°C)	*Added Protection to Braids		
QY	Quartz Yarn (99% Silica)	1800F (980°C)	2000F (1095°C)	F	P	P
R	Vitreous Silica Yarn (95% Silica)	1800F (980°C)	2000F (1095°C)	F	F	G
CF	Ceramic Fiber Yarn	2200F (1205°C)	2600F (1430°C)	G	F	G
ECF	Extra Heavy Ceramic Fiber Yarn	2200F (1205°C)	2600F (1430°C)	F	F	F
HCF	Heavy Weave of Ceramic Fiber Yarn	2200F (1205°C)	2600F (1430°C)	F	F	F
LLDPE	Linear Low Density Polyethylene (Gamma Stable Available)	176F (80°C)	176F (80°C)	E	E	G

O=Outstanding E=Excellent G=Good F=Fair P=Poor

MINERAL INSULATED THERMOCOUPLES

Mineral Insulated Thermocouple cable is insulated with magnesium oxide and covered with a seamless metal sheath. It is then drawn down, compressing the magnesium oxide into a tight protective covering over the thermocouple wire. This covering allows the cable to be bent and set in place without affecting readings. Calibration temperature ranges from 200°F to 2000°F. A few of the available calibration standards are AMS 2750, RPS 953, BAC 5621, AIAG, CQI-9, BS 2M54.



The chart below will enable you to select some of the most common MI Thermocouples. If you need something special, give us a call. It is our goal to make your job easy.

TC Type	No of Conductors	Sheath Material	Sheath Diameter	Connector
K	Simplex	304 ST/ST	1/16	Mini plug
J	Duplex	310 ST/ST	1/8	Mini jack
T		316 ST/ST	1/4	STD plug
N		321 ST/ST		STD jack
R		Nickel-Chromium		
S		Alloys		
B		Nickel Sheath Pt10%Rh		

UKAS LAB CERTIFICATIONS
To be Determined- Flexible Tails, Length, Operating Range

ARMORING

Coated Steel Armour Metal Armor



Aluminum or Steel Interlock



Served Wire Armor



Cobra has multiple armoring choices available to protect cable from mechanical, rodent, chemical, and water damage.

THERMOCOUPLE/INSTRUMENTATION CABLE

Overall Shield

Order Code	Number of Pairs	Nominal Outer Jacket Thickness	Nominal O.D.	Minimum Bending Radius	Maximum Pulling Tension
			In	In	Lbs
T*^20A915	1	0.035	0.220	1.45	26
T*^20A915A	2	0.042	0.322	2.00	40
T*^20A915B	4	0.042	0.370	2.50	75
T*^20A915C	6	0.052	0.440	2.70	105
T*^20A915D	8	0.052	0.475	3.00	142
T*^20A915E	10	0.052	0.540	3.25	170
T*^20A915F	12	0.052	0.560	3.25	210
T*^20A915H	16	0.062	0.645	3.70	275
T*^20A915J	20	0.062	0.670	4.00	330
T*^20A915L	24	0.062	0.745	4.80	405
T*^20A915R	36	0.072	0.890	6.00	600
T*^20A915O	50	0.072	0.995	6.00	830

*Calibration	1-Type K	2-Type J	3-Type T	4-Type R/S	5-Type E	6-Type N
^Grade	0-Nickle Plated Copper	1-Silver Plated Copper	2-Negative	3-Positive	4-Bare Copper	5-Tinned Plated Copper
						6-Premium
						7-Premium Extension
						8-Extension Thermocouple
						9-Thermocouple

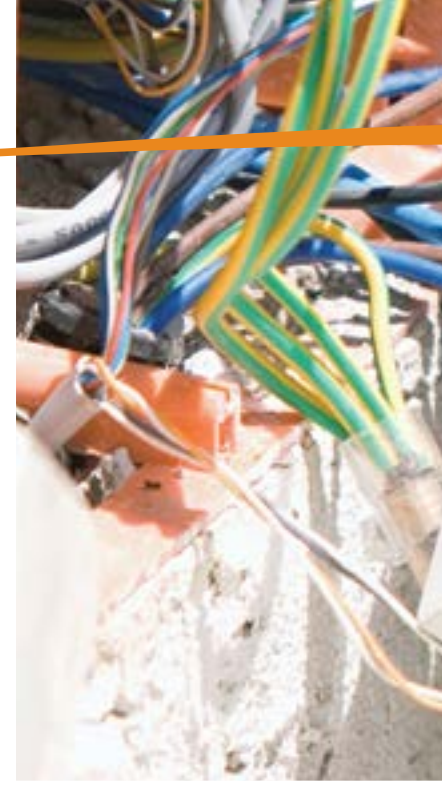
Alternate Color Codes Available



PVC Insulation & Jackets Overall Shield

Order Code	Number of Pairs	Nominal Outer Jacket Thickness	Nominal O.D.	Minimum Bending Radius	Maximum Pulling Tension
			In	In	Lbs
T8^20B915A	2	0.050	0.250	2.63	50
T8^20B915B	4	0.050	0.405	2.75	79
T8^20B915C	6	0.050	0.450	3.00	145
T8^20B915D	8	0.050	0.495	3.25	185
T8^20B915E	10	0.050	0.554	3.75	230
T8^20B915F	12	0.050	0.574	3.88	271
T8^20B915H	16	0.060	0.660	4.50	360
T8^20B915J	20	0.060	0.716	4.25	450
T8^20B915L	24	0.060	0.772	5.13	540
T8^20B915R	36	0.070	0.904	6.00	800
T8^20B915O	50	0.070	1.049	6.09	1120

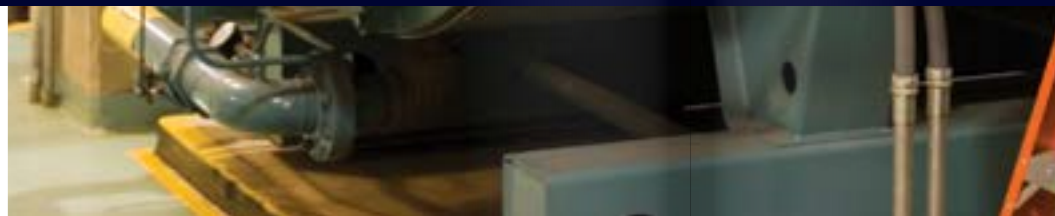
★ BOTH INDIVIDUAL & OVERALL SHIELD AVAILABLE



The following products are a partial list of some additional wires, cables, and other related products that Cobra Wire & Cable supplies at extremely competitive prices. If you don't see a product that you require in our catalogue, please contact us and we will find it for you.
Need Power? Think Cobra!



MISCELLANEOUS





COBRA WIRE & CABLE INC AWG
 SIZE RU AWM 3321 150° C 600V E
 NUMBER CSA NUMBER CL1503 XLPE
 OR AWM AB 150° C 600V FT1 RoHS

DESCRIPTION

This product has a maximum rating of 150°C, 600 Volts. It is both UL and CSA approved with tin coated copper conductor. It is suitable for the internal wiring of appliances, transformers, switchboards, generators and any other applications where a flexible, high temperature rating is required. It is an excellent replacement for expensive silicone insulated cables or stiff SIS cable that is hard to work with.

STRANDING

Flexibly Stranded Tinned Copper

STANDARD

UL 3321

INSULATION

Cross Linked Polyethelene (XLPE)

VOLTAGE

600 Volts

TEMPERATURE

-30°C to 150°C



Used in applications where a flexible, high temperature rating is required.



HOOK-UP WIRE

DESCRIPTION

Cobra's hook-up wire is used in the internal wiring of electrical and electronic equipment, internal wiring of panels and meters, point to point wiring, etc. Tin coated copper is ideal for corrosion resistance.

STRANDING

Class K Tinned Copper

STANDARD

UL 1015-1230

INSULATION

This product offers a unique flame retardant polyvinyl chloride compound (VW-1) and is moisture, abrasion, acid, diesel fuel and oil resistant. It is extremely flexible and easy to work with.

VOLTAGE

600 Volts

TEMPERATURE

105°C Dry, 75°C Wet



AWG SIZE E NUMBER (UL) MTW OR
 AWM 1011/1015/1230/1335 600V OR
 1032 1000V MOISURE RESISTANT
 VW-1 ** CSA TEW 105°C 600V FT1
 OR AWM I A/B 105°C 600V FTI



Cobra Part Number	Size	Stranding	Insulation Thickness	Nominal OD	UL Style	Cable Weight
	AWG					
MX2010	20	10 x 30	0.030	0.102	3321	7
MX1815	18	16 x 30	0.030	0.111	3321	9
MX1615	16	26 x 30	0.030	0.124	3321	13
MX1415	14	41 x 30	0.030	0.139	3321	19
MX1265	12	65 x 30	0.030	0.163	3321	28
MX1015	10	105 x 30	0.030	0.190	3321	42
MX8133	8	133 x 29	0.045	0.266	3321	72

Cobra Part Number	Size	Stranding	Insulation Thickness	Nominal OD	UL Style
	AWG				
A2018T	18	16 x 30	0.032	0.110	1015/1230
A1016T	16	26 x 30	0.032	0.120	1015/1230
A1014T	14	41 x 30	0.032	0.132	1015/1230
A1012T	12	65 x 30	0.032	0.150	1015/1230
A2010T	10	105 x 30	0.032	0.185	1015/1230
A2008T	8	133 x 29	0.048	0.260	1028/1231

VARIABLE FREQUENCY DRIVE CABLE

TYPE TC - VFD

Type TC-ER Power Cable. 600/2000 Volts. Copper Conductors. XLP Insulated Singles Rated RHH or RHW-2. Overall Copper Tape Shield. Three Grounding Conductors. Overall Flame, Moisture and Sunlight Resistant PVC Jacket.



APPLICATIONS

Type TC -VFD 600/2000 Volts power cable is used to supply power to motors, or for connection to other power devices in industrial settings. Primary installations include cable trays, raceways, and outdoor locations where supported by a messenger wire. Type TC - VFD is listed for direct burial or in underground ducts and for use in Class 1, Division 2 hazardous locations and Class 1 control circuits. This cable may be used in wet or dry locations at temperatures not to exceed 90 C. Cable is designed for use with Variable Frequency Drives (VFD) applications and rated up to 2000 Volts.

SPECIFICATIONS

- ASTM B3 and B8
- UL 44, 1277
- Color Code per ICEA S-58-679 Method 4
- IEEE 1202 FT4 Flame Test
- ICEA S-95-658 (NEMA WC 70) construction requirements

CONSTRUCTION

Type TC - VFD 600/2000 Volt power cable is manufactured using Type RHH or RHW-2. Individual conductors are bare annealed copper covered with a cross linked polyethylene (XLP) insulation. The conductors are cabled together with fillers and three bare ground wires, shielded with an uncoated 5 mil thick copper tape (50% overlap) and covered with an overall flame retardant, moisture and sunlight resistant PVC jacket.

Cobra P/N	Size	No. of Conds	Stranding	Ground Wires	Insulation Thickness	Jacket	Approx Overall	Amp		Net Weight
	AWG/KCMIL							(AWG)	Mils	
VFD143C-07	14	3	7	3 x #18	60	60	0.590	20	25	241
VFD123C-07	12	3	7	3 x #16	60	60	0.630	25	30	263
VFD103C-07	10	3	7	3 x #14	60	60	0.680	35	40	332
VFD083C-07	8	3	7	3 x #14	70	60	0.795	50	55	417
VFD063C-07	6	3	7	3 x #12	70	80	0.920	65	75	622
VFD043C-07	4	3	7	3 x #12	70	80	1.020	85	95	783
VFD023C-07	2	3	7	3 x #10	70	80	1.150	115	130	1156
VFD1/03C-07	1/0	3	19	3 x #6	90	80	1.415	150	170	1815
VFD2/03C-07	2/0	3	19	3 x #6	90	80	1.510	175	195	2587
VFD3/03C-07	3/0	3	19	3 x #5	90	80	1.620	200	225	2625
VFD4/03C-07	4/0	3	19	3 x #4	90	110	1.805	230	260	3241
VFD2503C-07	250	3	37	3 x #2	105	110	1.970	255	290	3657
VFD3503C-07	350	3	37	3 x #2	105	110	2.195	310	350	4958
VFD5003C-07	500	3	37	3 x #1	105	110	2.475	380	430	6689

Note: Ampacities are based upon Table 310.16 of the NEC, 2008 Edition. Ampacities are for general use with a 90°C conductor and 30°C ambient temperature as specified in section 310.15 and in cable trays as specified in 392.11.

CONDUCTORS: Class B stranded, uncoated annealed copper conforming to ASTM B-3 and B-8.

INSULATION: Each conductor is insulated with black Crosslinked Polyethylene (XLP) conforming to ICEA S-95-658/NEMA WC-70, Table 3-7 and UL Standard 44 for Type RHH/RHW-2.

COLOR CODE: Each conductor is black and printed with its conductor number in accordance with ICEA Method 4.

GROUND WIRES: Three Class B stranded, uncoated annealed copper conforming to ASTM B-3 and B-8.

CABLE ASSEMBLY: The three conductors and three ground wires are cabled with non-hygroscopic fillers.

SHIELD: A 5 mil uncoated copper tape is helically wrapped over the twisted assembly with a 50% (nominal) overlap. The shield shall be in contact with the ground wire.

OUTER JACKET: A black, flame retardant Polyvinyl Chloride (PVC) jacket meeting the requirements of UL Standard 1277 is applied.

TUBING/HEAT SHRINK

TYPE HSC-FR (Visi-Shrink)

FIRE RETARDANT CLEAR
HEAT SHRINK TUBING

UL RECOGNIZED TO 600V

Type HSC-FR is a flexible polyvinyl chloride clear heat-shrink tubing. Excellent flame retardant properties and a 2:1 shrink ratio, the VISI-SHRINK tubing enables inspectors to read die index embossments on installed connectors easily. UL recognized, 105°C, 600V, the operating temperature from -20°C to 105°C with shrink temperature of 135°C.



Features and Benefits

- **UL 224, VW-1 Rated**
Self-extinguishing flame retardant properties
- **Clear Tubing**
Allows inspection of die index embossments and shiner after installation is complete. Should any corrosion occur it will be visible during inspection.
- **Low Shrink Temperature**
Only requires common hot air guns to apply.
- **Flame retardant/fire retardant heat shrink**
 - **Thin wall heat shrink**
 - **Heavy wall heat shrink**

LACING/TOOLS



In 1872, Thomas Edison developed a power cable named the "Edison Tube." It consisted of a solid copper conductor, spirally wrapped with purified cotton rope, and placed inside a steel pipe. The pipe was then filled with paving asphalt, which served as insulation.

Lacing Cord

Wax Coated
White 9 Ply-stock
White 12 Ply-stock
White 11lb-stock
Colors available upon request

Lacing Needle

Heavy duty with an orange handle

Fish Paper

Gray in stock

Tags

Brass Tags (Do Not Disconnect)
Fiber P-Tags
Fiber C-Tags





Cobra & Panduit - working together to benefit our customers!

Cobra has strategically located warehouses that stock many Panduit products allowing us to serve major markets in the world. We offer a wide range of wire, cable, and associated products necessary to your networking, electrical or electronic needs.



Cobra and Panduit - partnering together for total customer satisfaction.

Utility and Generator Sources

Maximize uptime and protect network equipment and personnel in your data center by ensuring a reliable and safe power infrastructure with solutions from COBRA & PANDUIT.

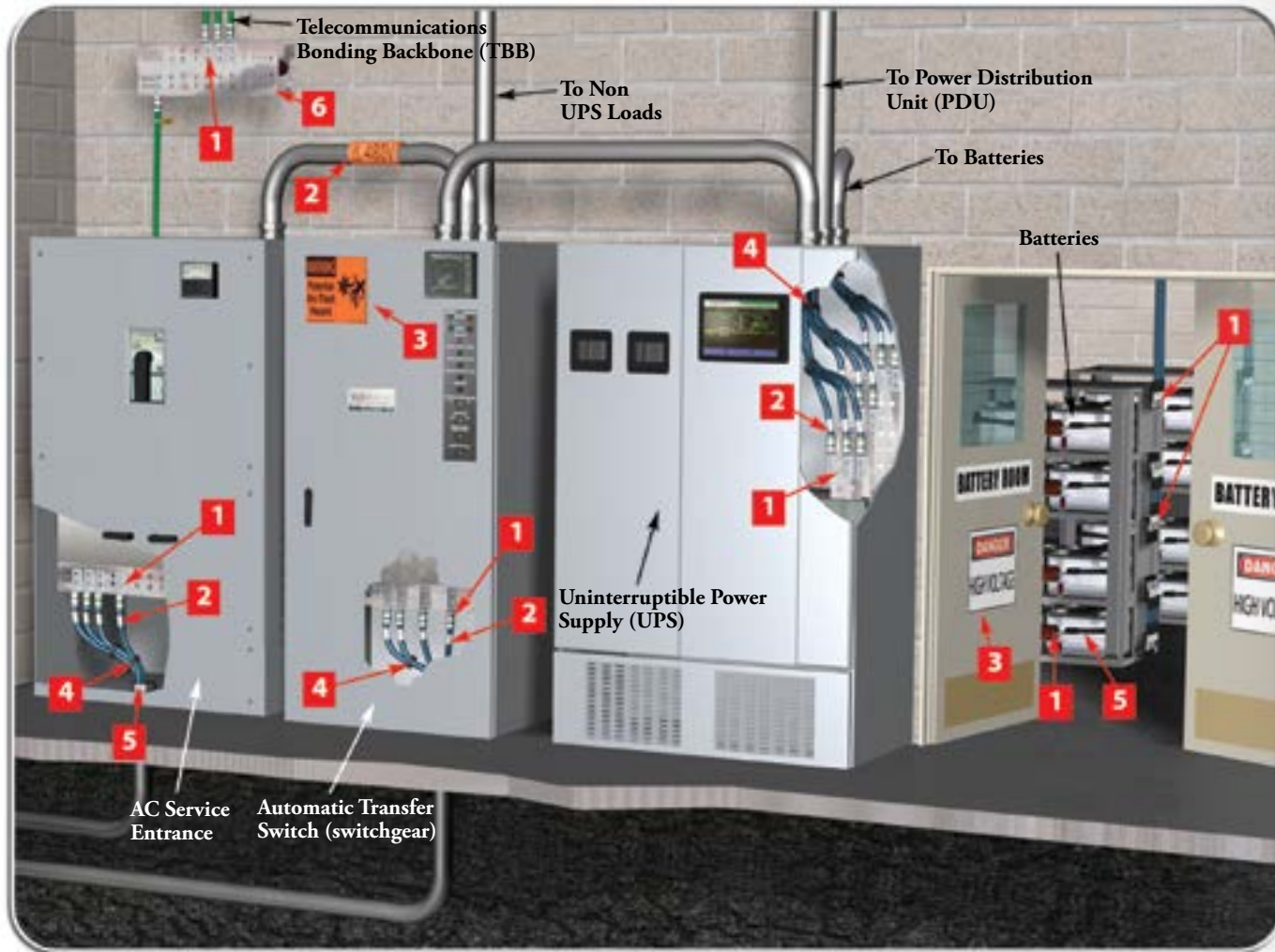


The utility transformer provides the main power to the system. In the event of an interruption, the backup generator provides power.

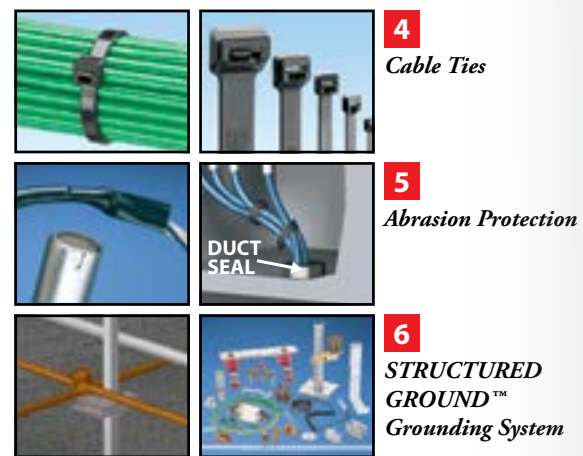
		<p>1 <i>PAN-LUG™ Copper Compression Lugs for Code and Flex Conductor</i></p>			<p>4 <i>Cable Ties</i></p>
		<p>2 <i>Labeling Systems</i></p>			<p>5 <i>Abrasion Protection</i></p>
		<p>3 <i>Safety Solutions</i></p>			<p>6 <i>Lockout/Tagout</i></p>

Service Entrance

Maximize uptime and protect network equipment and personnel in your data center by ensuring a reliable and safe power infrastructure with solutions from COBRA & PANDUIT.

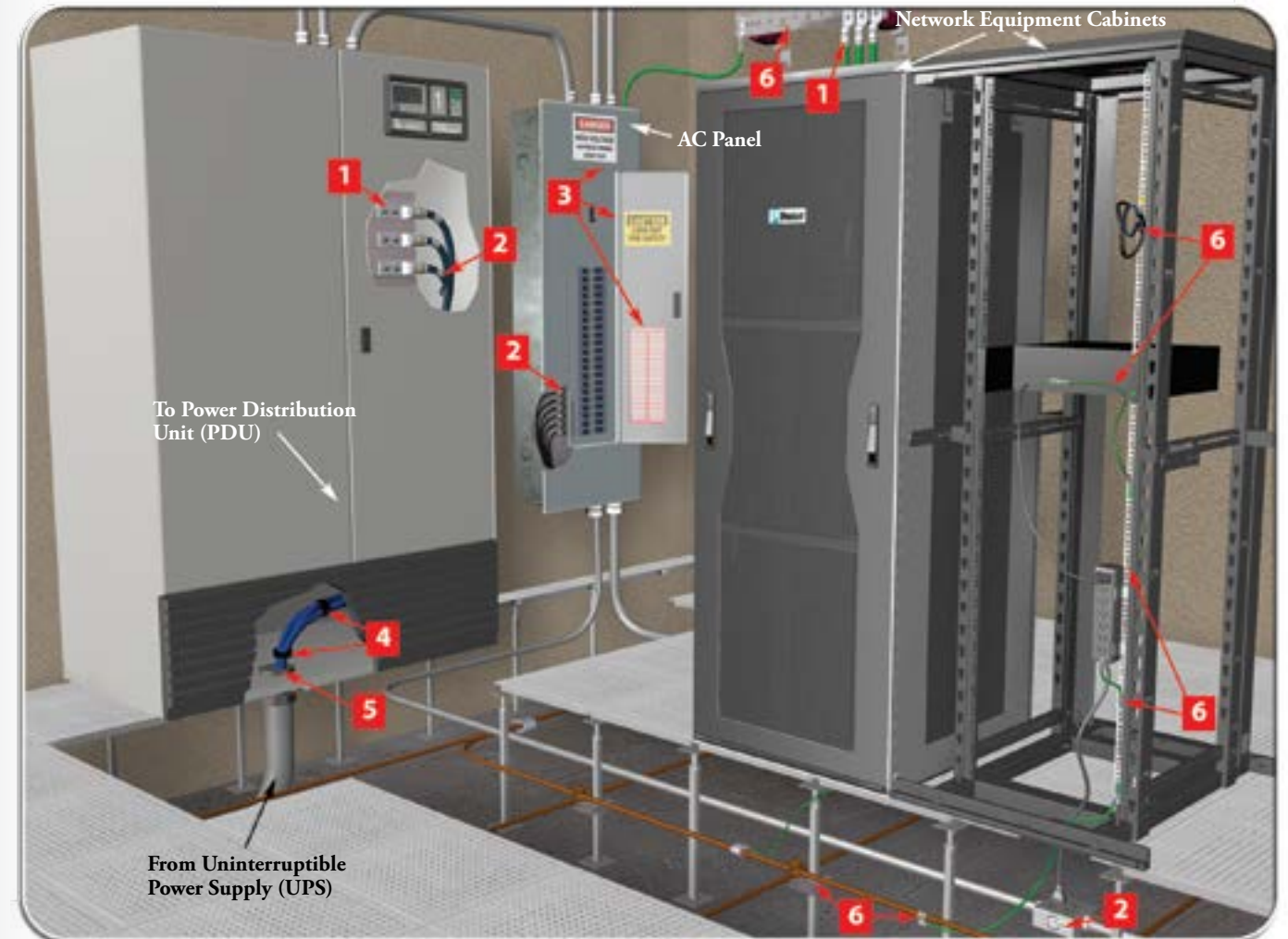


The automatic transfer switch (switchgear) is connected to the utility and generator sources, and is routed to the uninterruptible power supply (UPS). The UPS includes backup batteries and supplies power to the electrical distribution system which allows time for the backup generator to start.

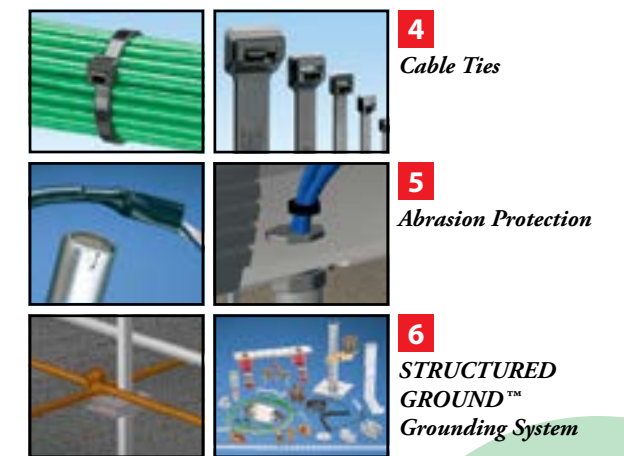


Data Center Raised Floor

Maximize uptime and protect network equipment and personnel in your data center by ensuring a reliable and safe power infrastructure with solutions from COBRA & PANDUIT.



Power Distribution Units (PDUs) provide power to AC panels. AC panels provide power to network equipment cabinets.





Cobra Wire & Cable partnering with Burndy!

Cobra has the ability to ship Burndy products from its stocking locations throughout the United States. When you need lugs or reducers, think Cobra. Together, Burndy and Cobra share a commitment to our customers and pledge on time delivery where you need it and when you need it. Take advantage of "one stop shopping" and reduced freight costs.



Cobra and Burndy - teaming together for your advantage.

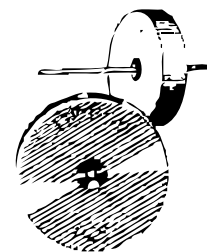
Experience. Technology. Answers.



COPPER WEIGHTS/AWG TO METRIC

AWG	#M
500 MCM	1534
350 MCM	1090
250 MCM	769
4/0	665
3/0	518
2/0	420
1/0	335
1	260
2	210
4	133
6	82
8	52
10	32
12	20
14	13
16	8
18	5
20	3
22	2
24	1.4
26	0.84

In the wire drawing process, to produce 30 AWG wire, a 3/16" copper rod is typically pulled through 29 progressively smaller dies.



AWG	MM ²
30	0.05
28	0.08
26	0.14
24	0.25
22	0.34
21	0.38
20	0.5
18	0.75
17	1
16	1.5
14	2.5
12	4
10	6
8	10

AWG	MM ²
6	16
4	25
2	35
1	50
1/0	55
2/0	70
3/0	95
4/0	120
300MCM	150
350MCM	185
500MCM	240
600MCM	300
750MCM	400
1,000MCM	500

SHIPPING WEIGHTS

Gauge	Stranding	Insulation Thickness	Nominal OD	Std. Ft./Reel	Appr. Shipping Lbs/M'
8	19/.0295	3/64	0.243	1,000'	79
8	133/.0112	3/64	0.261	1,000'	79
8	19/.0295	4/64	0.273	1,000'	90
8	133/.0112	4/64	0.291	1,000'	90
8	19/.0295	5/64	0.315	500'	102
8	133/.0112	5/64	0.333	500'	102
8	19/.0295	6/64	0.360	500'	112
8	133/.0112	6/64	0.378	500'	112
8	19/.0295	8/64	0.405	500'	132
8	133/.0112	8/64	0.423	500'	132
6	19/.0372	4/64	0.313	500'	136
6	133/.0142	4/64	0.340	500'	136
6	19/.0372	5/64	0.353	500'	149
6	133/.0112	5/64	0.380	500'	149
6	19/.0372	6/64	0.383	500'	160
6	133/.0112	6/64	0.410	500'	160
6	19/.0372	8/64	0.443	500'	185
6	133/.0142	8/64	0.470	500'	185
4	19/.0469	4/64	0.362	500'	189
4	7/19(133)/.0177	4/64	0.392	500'	189
4	19/.0469	5/64	0.402	500'	200
4	7/19(133)/.0177	5/64	0.432	500'	200
3	133/.0199	4/64	0.427	500'	225
2	19/7(133)/.0226	4/64	0.467	500'	292
2	665/.0100	4/64	0.464	500'	292
2	19/7 (133)/.0226	5/64	0.511	500'	305
2	665/.0100	5/64	0.504	500'	305
1	19/7 (133)/.0254	5/64	0.554	500'	351
1	836/.0100	5/64	0.567	500'	351
1/0	19/7(133)/.0285	5/64	0.600	500'	452
1/0	1064/.0100	5/64	0.621	500'	450
2/0	19/7(133)/.0325	5/64	0.661	500'	551
2/0	1330/.0100	5/64	0.653	500'	551
3/0	37/7(259)/.0254	5/64	0.706	500'	672
3/0	1665/.0100	5/64	0.712	500'	672
4/0	37/7 (259)/.0285	5/64	0.776	500'	820
4/0	37/57/(2109)/0100	5/64	0.785	500'	820

COMPARATIVE PROPERTIES OF PLASTIC

Properties	PVC	Low-density Polyethylene	Cellular Polyethylene	High-Density Polyethylene	Poly-propylene	Cellular Polypropylene	Poly-urethane	Nylon	CPE
Oxidation Resistance	E	E	E	E	E	E	E	E	E
Heat Resistance	G-E	G	G	E	E	E	G	E	E
Oil Resistance	F	G-E	G	G-E	F	F	E	E	E
Low Temp Flexibility	P-G	E	E	E	P	P	G	G	E
Weather, Sun Resistance	G-E	E	E	E	E	E	G	E	E
Ozone Resistance	E	E	E	E	E	E	E	E	E
Abrasion Resistance	F-G	G	F	E	F-G	F-G	O	E	E-O
Electrical Properties	F-G	E	E	E	E	E	P	P	E
Flame Resistance	E	P	P	P	P	P	P	P	E
Nuclear Radiation Resistance	F	G-E	G	G-E	F	F	G	F-G	O
Water Resistance	F-G	E	E	E	E	E	P-G	P-F	O
Acid Resistance	G-E	G-E	G-E	E	E	E	F	P-F	E
Alkali Resistance	G-E	G-E	G-E	E	E	E	F	E	E
Gasoline, Kerosene, etc. Resistance	P	G-E	G	G-E	P-F	P	P-G	G	E
Benzol, Toluol, etc. Resistance	P-F	P	P	P	P-F	P	P-G	G	G-E
Degreaser Solvents Resistance	P-F	G	G	G	P	P	P-G	G	E
Alcohol Resistance	G-E	E	E	E	E	E	P-G	P	E
Underground Burial	P-G	G	N/A	E	N/A	N/A	G	P	E-O

O-Outstanding E=Excellent G=Good F=Fair P=Poor

WARRANTY/DISCLAIMER

Limited Warranty

EIS, Inc. DBA Cobra Wire & Cable (Cobra) warrants that the products will be free from defects in materials and workmanship. No claim shall be maintained under this warranty unless the facts giving rise to it are discovered within 12 months from the date of purchase and written notice thereof given to Cobra within 30 days of discovery. The foregoing express warranty is sole and exclusive and is given in lieu of all other warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose.

In the event of any breach of this warranty and provided such breach is reported to Cobra within the one year limited warranty period, Cobra shall, at its sole option, refund the purchase price, or at its option, replace or repair the defective product. Cobra shall not be liable for labor or any other costs or expenses associated with removing or replacing any defective product. Under no circumstances will Cobra be liable for special, collateral, indirect, incidental or consequential damages of any kind, including, without limitations, loss of profits and injury or damage to personal property or the property of another. The sole and exclusive liability of Cobra for any claim relating to the products, whether such claim arises under contract, breach of warranty, tort, strict liability or any other legal theory, shall be limited to Cobra's obligation to refund the purchase price, or at its option, replace or repair the defective item as set forth in this warranty. Some states do not allow the exclusion or limitation for consequential incidental damages, so the above limitation may not apply to you. This warranty shall not be applicable to products which have been subject to improper installation, overloaded, misused, abused, or altered in any manner, by unauthorized repair or damage by accident or otherwise.

Disclaimer of all Express and Implied Warranties

While great care has been taken to ensure that the products, tables and formulas contained herein are free of errors, absolutely no warranties, either expressed or implied, are made as to the products, and accuracy or completeness of any such tables and formulas contained herein.

Neither EIS, Inc. DBA Cobra Wire & Cable nor anyone else who has been involved in the creation, production, or delivery of this product catalog shall be liable for any direct, indirect, consequential or incidental damages arising out of the use, the results of the use, or inability to use such product catalog, even if EIS, Inc. DBA Cobra Wire & Cable has been advised of the possibility of such damages or claim. Some states do not allow the exclusion or limitation for consequential incidental damages, so the above limitation may not apply to you.

This warranty shall be interpreted under the laws of the State of Georgia, without regard to conflict of law principals.

ADDITIONAL INFORMATION

GENERAL TERMINOLOGY

Thermoplastic - Materials that soften and flow when heated. Usually possess a definite melting point. The material will become firm again upon cooling. These materials can be molded and shaped with a heating and cooling process (the process can be repeated). Extrusion of melt flow polymers on wire is an example of this type of material.

Thermoset - Materials are soft and pliable during one stage of processing. They can be molded and extruded at this state after which they are set or cured, usually at a higher temperature. After the setting process (crosslinking) is complete, they can not be softened by re-heating resulting in improved heat and solvent resistance properties over thermoplastic materials.

Insulation - Materials possessing good dielectric properties used on wire components in cable, usually as direct covering on conductors.

Jacket - Materials that provide protection in mechanical and chemical properties applied as a direct covering over cable components. The choice of materials for cable design to satisfy any given combination of installation and environmental conditions can often be more critical than the electrical requirements.

Non-Halogen Compounds

Over the last few years, non-halogen flame retardant reduced emissions compounds have been developed in response to a growing demand for products which offer greater protection against fatalities, injuries and property damage caused by fire. When burned, cables made with non-halogen flame retardant compounds give off as little as one quarter the smoke and fumes of conventional cable materials. These compounds have good crush and deformation resistance, good flexibility, excellent long term ageing properties and physical integrity at low temperatures. Cables made with these compounds will meet the flame and smoke requirements of UL 1385 and can be designated as "LS" or Low Smoke.

INDUSTRY STANDARDS

UL Standards

- UL 44 - Rubber Insulated Wires and Cables
- UL 62 - Flexible Cord and Fixture Wire
- UL 83 - Thermoplastic Insulated Wires and Cables
- UL 458 - Power Converters and Power Converter Systems for RV's
- UL 583 - Electric Battery Powered Industrial Trucks
- UL - 1063 Machine Tool Wires and Cables
- UL 1426 - Electric Cables for Boats
- UL 1564 - Industrial Battery Chargers
- UL 1581 - Reference Standard for Electrical Wires, Cables & Flexible Cords
- UL 1685 - Vertical Tray, Fire Propagation and Smoke Release Test for Electrical and Optical Fiber Cables
- UL 1778 - Uninterruptible Power Supply Equipment

ICEA Standards

- S19-81 - Rubber Insulated Wire & Cable
- S61-402 - Thermoplastic Insulated Wire & Cable
- S66-524 - Crosslinked Thermosetting Polyethylene Insulated Wire & Cable
- S68-516 - Ethylene Propylene Rubber Insulated Wire & Cable
- P53-426 - Ampacities 15KV through 35KV, Copper and Aluminum Conductors

Nema

- WC3-1969 - Same as ICEA S19-81
- WC5-1973 - Same as ICEA S61-402
- WC7-1972 - Same as ICEA S66-524
- WC8-1974 - Same as ICEA S68-516
- WC50-1972 - Same as ICEA P53-426

For its first seven years (1894-1901), Underwriters Laboratories Inc. (UL) was known as Underwriters' Electrical Bureau. In April 1898, it issued its first listing of electrical cables, which included wires and flexible cords manufactured by 19 different companies.



INDUSTRY ORGANIZATIONS

- AAR - Association of American Railroads
- ABS - American Bureau of Shipping
- AEIC - Association of Edison Illuminating, Co.
- ANSI - American National Standards Institute
- ASTM - American Society for Testing Materials
- ATIS - Alliance for Telecommunications Industry Solutions
- BICSI - Building Industry Consulting Services International
- CAA - Civil Aeronautics Administration
- EPRI - Electrical Power Researcher Institute
- ETL - Electrical Testing Laboratory
- FAA - Federal Aviation Administration
- FCC - Federal Communications Commission
- IACS - International Annealed Copper Standard
- IAEI - International Association of Electrical Inspectors
- ICEA - Insulated Cable Engineers Association
- IEC - International Electrotechnical Commission
- IEEE - Institution of Electrical and Electronic Engineers
- IMSA - International Municipal Signal Association
- ISA - Instrument Society of America
- ISO - International Organization for Standards
- MESA - Mine Environmental Safety ACT
- MSHA - Mine Safety and Health Administration
- NEC - National Electric Code
- NEMA - National Electrical Manufacturers Association
- NPFA - National Fire Protection Association
- OEM - Original Equipment Manufacturers
- OSHA - Occupational Health and Safety Administration
- PES - Power Engineering Society
- REA - Rural Electrification Administration
- RVIA - Recreational Vehicle Industry Association
- SAE - Society of Automotive Engineers
- TIA - Telecommunications Industry Association
- UL - Underwriters Laboratories, Inc.
- USCG - United States Coast Guard

Cobra's Pledge for a Greener Tomorrow

Cobra Wire & Cable pledges to continue to reduce waste, conserve resources and enhance our already strong recycling program. Future generations depend on it.

Cobra Wire & Cable pledges to manage all resources wisely. Future generations depend on it.

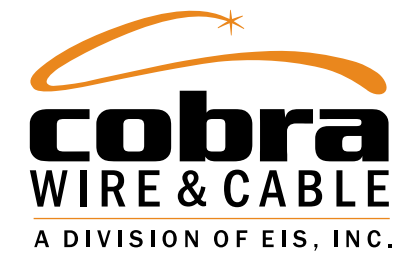
Cobra Wire & Cable pledges to make environmental protection and enhancement part of our corporate mission. Future generations depend on it.

Cobra Wire & Cable pledges to continue our efforts to design wires and cables that reduce and eliminate hazardous substances without compromising the suitability and performance of the product. Future generations depend on it.

Cobra Wire & Cable pledges to proactively move forward to engineer and manufacture cables with low smoke and zero-halogen properties which saves lives and makes for a better tomorrow. Future generations depend on it.

Cobra Wire & Cable pledges to remember that environmental stewardship is no longer a feel good option, but a mandatory obligation.

Powering your business - now and for future generations.



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THE COBRA ADVANTAGE

In this day of impersonal communication such as voicemail, e-mail, Facebook, Twitter, etc., many times people simply want to talk to a real person, especially when their job or business is affected. This is the "Cobra Advantage." Whether you need pricing, stock checks, or technical information, you can call Cobra and talk to a real person who is a dedicated individual with the knowledge and understanding to answer your questions and respond to your needs. If we don't have an immediate answer to your question, we will find out the answer and call you back in a short, reasonable amount

of time. We don't consider ourselves "order takers" at Cobra, we consider ourselves problem solvers. Our dedicated team is here to serve you. You tell us what you need, when you need it and where you need it. Cobra Wire & Cable will make it happen or offer an acceptable alternative to accomplish your goals. You will be working with a real person from start to finish, a person who is knowledgeable, qualified and determined to put your needs first. Voicemail, e-mail, Facebook, and tweeting all have their place, but sometimes you need a real person! Call Cobra Wire & Cable and talk to our team.



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